planned so as to include 3 series of experiments. In the first series samples of freshly dug potatoes were collected and cut lengthwise into two equal parts. One set of the samples was used immediately for the determinations of moisture, sugar, and starch. The corresponding halves were divided into 3 sets and each set stored at a different temperature for 12 days before similar determinations were made. The samples were stored at 30, 15.5, and 5° C. For a check a number of whole potatoes were subjected to the same conditions. The second series was a duplicate of the first, except that the potatoes were dug about 2 weeks later. This series would show any change occurring in the growing potatoes after the first series was harvested. The third series of experiments was modified so as to determine the effect of removal of the vines on the carbohydrate transformations. The roots were not harvested until 10 days after a killing frost.

HASSELBRING and HAWKINS pointed out that to the rate of carbohydrate transformations in stored sweet potatoes the Van't Hoff temperature law was applicable. In general, at 30° C. starch hydrolysis was rapid at first and soon reached an end point. At 15°.5 C. a more normal rate of transformation took place, tending toward a state of completion. The hydrolysis at 5° C. was markedly retarded. In spite of the utilization of reducing sugar in respiration, HASSELBRING and HAWKINS were able to show a marked accumulation at first and very little subsequent accumulation. The concentration of the reducing sugar was found to be comparatively low during the period of storage. There was a lag in accumulation of cane sugar, associated with the increase of reducing sugar. The data suggested that the mode of carbohydrate transformation in stored sweet potatoes was from starch to reducing sugar, which resulted in the formation of cane sugar as the end product. On studying the effect of the vines on transformations, it was found that during their activity the sugar content remained low. As soon as the flow of materials was checked by removal of the vines, the usual transformations as found in storage of sweet potatoes manifested themselves.

HASSELBRING and HAWKINS[11] have pointed out that the internal changes during storage must play an important rôle in susceptibility to decay. Aside from the theoretical significance, it seems that this mode of attack on storage problems of this nature will be of economic value.—FRED W. GEISE.

Taxonomic notes.—BRITTON,[12] in continuation of his studies of West Indian plants, has described new species in *Cleome*, *Chamaecrista* (3), *Leucocroton* (3), *Passiflora* (3), *Rondeletia* (10), *Eriocaulon* (3), *Dupatya*, *Pilea*, *Ichthyomethia*, *Castelaria*, and *Stenostomum* (2).

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[12] BRITTON, N. L., Studies of West Indian plants. IX. Bull. Torr. Bot. Club 44:1–37. 1917.

FAWCETT and RENDLE[13] have described new species of *Tephrosia*, *Cassia*, and *Erythroxylum* from Jamaica.

GATES[14] has described a new species of *Oenothera* (*O. novae-scotiae*) from Nova Scotia. It is related to *O. muricata*, but is distinct in leaf, stem, and bud characters, especially as to pigments. The species was studied in connection with the germination of 1000 of its seeds.

GREENMAN,[15] in continuation of his studies of *Senecio*, has presented § AUREI. The section includes 48 species, 5 of which are new, the descriptions being accompanied by a full bibliography and liberal citations of exsiccatae, especially such as occur in American herbaria. The same author[16] has also described a new vinelike *Senecio* (*S. Hollickii*) from Jamaica, collected by BRITTON and HOLLICK in 1908.

Miss HILL[17] has described a new species of *Spirogyra* collected in the basin of an old fountain in Seattle, Wash. It is named *S. gigantica* on account of its size, the filaments being 173–188 μ in diameter, the cells being 1–2 diameters long, and with 4–6 chloroplasts. It most nearly resembles *S. crassa*.

HUBBARD[18] has described a new species of *Agropyron* (*A. acadiense*) from Cape Breton, Nova Scotia, related to *A. Smithii* Rydb.

NAKAI,[19] in continuation of his studies of the plants of Japan and Corea, has described 15 new species in several genera, and proposes the following new genera: *Pentactina* (Spiraeaceae) and *Polakiastrum* (Scrophulariaceae).

OLIVE and WHETZEL,[20] in connection with a study of the parasitic fungi of Porto Rico, describe *Botryorhiza* and *Endophylloides* as new genera, and also 4 species of *Endophyllum* as new combinations, formerly referred to *Aecidium*.

PRAEGER,[21] in the course of a revision of *Sedum* as found in cultivation, has described 8 new species.—J. M. C.

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